MCFRS RESPONSE TIME MODEL

Response Time = Call processing/dispatch time + Turnout time + Travel time

Call Processing/Dispatch Time
Begins: When 9-1-1 call is transferred from the 9-1-1 operator to Fire-Rescue call-takers
Ends: When fire-rescue stations have been alerted and units dispatched

Turnout Time
Begins: When station(s) and personnel have been alerted/dispatched
Ends: When unit(s) is(are) en route after personnel have donned gear and seatbelts

Travel Time
Begins: When unit(s) is(are) en route to incident scene [Unit status is "Enroute"]
Ends: When unit(s) arrive(s) at incident scene [Unit status is "OnScene"]

MCFRS Response Time Goals

- Allow 2 minutes combined time for call processing/dispatch and turnout
- Remainder of time is travel time*

* Travel time is based on a Rand Institute model that is based upon field tests conducted in city traffic conditions (in NYC) that indicate:

- Initial 0.5 mile of travel takes approximately 2 minutes, where unit goes from 0 mph to its "cruising speed" of 39 mph
- Unit averages 39 mph during remainder of travel to incident scene

MCFRS RESOURCE DEPLOYMENT

MINIMUM STAFFING LEVELS FOR PRIMARY UNITS

- Ambulance: 2 EMS providers at EMT-B or higher level of certification
- Medic Unit: 2 EMS providers, including at least one EMT-I or EMT-P certified
- Engine: 3 firefighter-rescuers
- Aerial Unit: 3 firefighter-rescuers
- Rescue Squad: 3 firefighter-rescuers
- Tanker: 1 firefighter-rescuer

FOUR-PERSON ALS STAFFING

- 24 frontline engines have 4-person staffing with one person certified as both a firefighter and paramedic. These engines provide both suppression and ALS.
- 1 aerial unit (AT708) has 4-person staffing with one person certified as both a firefighter and paramedic. This aerial unit provides both suppression and ALS.
- Multi-year plan is for all frontline suppression units (i.e., engines, aerial units and rescue squads) to have 4-person staffing to provide both suppression and ALS.
- Units are known as "AFRAs" – ALS first responder apparatus

STANDARD DEPLOYMENTS

Fire Suppression:

- Full assignment (e.g., box alarm, structure fire): 5 engines, 2 aerial units, 1 rescue squad, 1 EMS unit, command officers
- High-rise box alarm: same as for box alarm, plus one additional aerial unit
- Rural box alarm: same as for box alarm, plus 3 tankers
- Hazmat box alarm: same as for box alarm, plus hazmat units/resources
- Adaptive assignment (e.g., dumpster, alarm bells, smoke alarm, electrical short, brush fire, downed wires): 1 engine; 1 engine and 1 special service; 2 engines and 1 special service; 1 engine and 1 brush unit; or other combination of units - depending on nature of incident and level of risk

EMS:

- BLS incident: 1 ambulance; plus "manpower unit" when needed
- ALS incident: 1 medic unit and 1 AFRA, or 2 AFRAs and 1 ambulance. In addition, a BLS first-responder or "manpower unit" may be dispatched in certain cases.
- Collision: EMS unit (alone); 1 EMS unit and 1 engine; or 1 EMS unit, 1 rescue squad, and 1 engine – depending on nature of incident and level of risk

Special Incidents:

- Mass Casualty Incident: multiple EMS, fire, and rescue units depending on scope
- Water or Ice Rescue: boats/strike teams, plus other units depending on nature/scope
- Hazmat Incident: hazmat units, plus other units depending on nature/scope
- Confined Space/Trench/High-angle Rescue: Collapse Rescue Team, plus other units

FIGURE 5.6 – MCFRS RESPONSE TIME GOALS [Revised]

Service	Response Time Goal	Travel Time	Urban Goal	Suburban Goal	Rural Goal	**NFPA 1710 Goal**
Unit w/AED[1] to Delta- or Echo-EMS Incident	**6 min**	**4 min**	**90%**	**75%**	**50%**	6 mins 90%
ALS response[2] to Charlie, Delta or Echo EMS Incidents	**8 min**	**6 min**	**90%**	**75%**	**50%**	10 mins 90%
BLS response[3] to Alpha, Bravo, or certain Charlie EMS Incidents	**12 min[4]**	**10 min[4]**	**98%**	**95%**	**90%**	N/A
Transport Unit - ALS Patient[5]	**12 min**	**10 min**	**90%**	**75%**	**50%**	N/A
1st arriving Engine to fire	6 min	4 min	90%	75%	**50%**	6.3 mins 90%
2nd arriving Engine to fire	8 min	6 min	90%	75%	**50%**	N/A
3rd arriving Engine to fire	10 min	8 min	90%	75%	**50%**	N/A
4th arriving Engine to fire	12 min	10 min	90%	75%	**50%**	N/A
5th arriving Engine to fire	**14 min**	**12 min**	**90%**	**75%**	**50%**	N/A
1st arriving Tanker[6]	8 min	6 min	NA	NA	**50%**	N/A
2nd arriving Tanker[7]	12 min	10 min	NA	NA	**50%**	N/A
3rd arriving Tanker[8]	18 min	16 min	NA	NA	**50%**	N/A
Extrication[9]	9 min	7 min	90%	75%	**50%**	N/A
Heavy Rescue[10]	12 min	10 min	**90%**	**75%**	**50%**	N/A
1st arriving Aerial Unit[11] to fire	8 min	6 min	**90%**	75%	**50%**	N/A
2nd arriving Aerial Unit[12] to fire	12 min	10 min	**90%**	**75%**	**50%**	N/A
3rd arriving Aerial Unit[13] to fire	**14 min**	**12 min**	**90%**	**75%**	**50%**	N/A
Full Assignment - Structure Fire[14]	**14 min**	**12 min**	**90%**	**75%**	**50%**	10.3 mins. - 90%
1st-due Command Officer	**10 min**	**8 min**	**90%**	**75%**	**50%**	10.3 mins 90%
2nd-due Command Officer	**14 min**	**12 min**	**90%**	**75%**	**50%**	N/A

Note A: All stated response times are at X minute, zero seconds. Example: A first-due engine response of 6 minutes (or under) would meet the 6-minute goal, whereas 6 minutes 1 second (and above) would not.
Note B: New or modified goals are shown in **boldface type**.

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[1] Any MCFRS unit having an AED and a minimum of 2 EMT-B or higher level providers to operate it.
[2] Units with ALS equipment whose combined staffing includes a minimum of 2 EMT-I (or higher level) providers and 2 EMT-B (or higher level) providers. Example: Two-person EMS unit and four-person engine having a combined staffing of an EMT-P, an EMT-I, and 4 EMT-B personnel.
[3] Unit (e.g., ambulance) having basic life support (BLS) equipment and a minimum of 2 EMT-B or higher level providers. Examples of BLS incidents: strains, fractures, contusions, unspecified sicknesses.
[4] New (i.e., higher) goal for BLS response to Alpha-, Bravo-, and certain Charlie-level incidents (as determined via Emergency Medical Dispatch protocol) reflects non-life threatening nature of these calls.
[5] Ambulance or medic unit. EMT-P or EMT-I from AFRA will accompany patient to hospital, if required.
[6] 1st-due tanker on fires in areas lacking hydrants arrives within 2 minutes of 1st-due engine
[7] 2nd-due tanker's arrival coincides with arrival of 4th-due engine
[8] 3rd-due tanker arrives approximately 2-3 minutes before 2nd tanker's water is expended
[9] Extrication capable unit – extrication-equipped engine or aerial unit, or heavy rescue squad
[10] Rescue Squad response required
[11] Arrival time of 1st-due aerial unit is in relation to arrival of 1st and 2nd-due engines on box alarms or adaptive responses.
[12] Arrival time of 2nd-due aerial unit is in relation to arrival of 3rd and 4th-due engines on box alarms.
[13] Arrival time of 3rd-due aerial unit (on high-rise box alarms) is in relation to arrival of 5th-due engine.
[14] All initial alarm units due on a standard box alarm, high-rise box alarm or non-hydranted area box alarm.